NPIC/D-333-70
18 November 1970

MEMORANDUM FOR: Group and Staff Chiefs, NPIC

SUBJECT : Draft of Paper on Information Needs of the Executive
Director, NPIC, and the NPIC Management Information
System

1. Attached is a draft of a paper re the above subject. I
would appreciate your comments on this paper, particularly para-
graphs 4 and 5 which recommend the categories of information to be
furnished the Executive Director and paragraph 13 which spells out
several alternative courses of action that might be taken with re-
spect to the MIS.

2. I would appreciate hearing from you on this matter as
quickly as possible, preferably no later than 23 November 1970.

Office of the Director, NPIC

Attachment:
a/s

Distribution:
Original - NPIC/PPBS
1 - NPIC/TSG
1 - NPIC/SS
1 - NPIC/PSG
1 - NPIC/IEG
2 - NPIC/ODIR

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**Declass Review by
NIMA/DOD**

18 November 1970

MEMORANDUM FOR: Executive Director, NPIC

SUBJECT : The Information Needs of the Executive Director, NPIC, and the NPIC Management Information System

REFERENCES : (a) Memorandum and Attached Study to Executive Director, NPIC, titled Definition of Management Information Needs, Reassessment of the Management Information System (MIS) and Consideration of Alternatives, Dated 22 August 1969.

(b) Memorandum for Chief, Plans & Programs Division, PPBS from [   ] titled Improvement of the MIS, Dated 25 February 1970.

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1. Per your instructions I have been examining the current NPIC Management Information System with the goal in mind of recommending changes that would simplify the system and make it more responsive to management in terms of the data needed and the timeliness of the responses.

2. Determining what kind of information is needed seemed to be the first question that had to be answered. If this question could be answered satisfactorily then perhaps the MIS might be modified, changed or even eliminated and replaced by a totally different system (if that seemed appropriate) in order to provide the information required. As you are fully aware this is not an easy chore. The information that one person feels is essential to better manage an activity, another person may feel is of limited value and vice versa. Also, information that is essential today may be of little or no value tomorrow and information on new or different functions or activities becomes of paramount value.

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3. The challenge then is to define the information requirements
of management and suggest a system that will deliver the appropriate
information in a timely manner. In doing so, we must realize that an
automated system is inherently more structured and therefore more rigid
than a manual one. This really means that if we select an automated
system, the one real advantage of a manual system, adaptability, is
immediately diminished. We should be able to expect, however, signifi-
cant gains in the speed, accuracy, and information content of the reports
delivered from an automated system. All of this expectation is predicated
on the assumption that we can explicitly define management information
needs. When those needs change as they invariably and frequently do,
the adapting of an automated information system, even if only in a minor
way, to reflect the change becomes significantly more expensive and re-
quires more time to accomplish than a similar change to a manual system.

4. To address specifically the kinds of information required by
the Executive Director, NPIC, to assist, and I emphasize assist him in
managing the Center, I would direct your attention to Part IV of the
NPIC Five Year Plan FY 1972-1976 which enumerates the accomplishments of
the Center during CY 1969.

a. These accomplishments include the number of satellite
missions received during the period and the number of OAK and
OAK Supplement reports and briefing boards produced during the
exploitation phases (1 and 2) of these missions. Similar infor-
mation is provided on the number of aircraft missions (high and
low altitude) received and read out during the per

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b. The number of reports produced by the Center in the Basic Support Program is also shown as well as the number of requests received and reports and memoranda produced under the Direct Support Program. Mention is also made of the substantial numbers of cables, briefing and graphic aids produced under the Direct Support Program.

c. The number of reports to which NPIC provided graphic, photographic, printing, dissemination and control support for the imagery exploitation organizations of CIA, DIA, Army, Navy and Air Force during the period is also included.

d. In addition to the above quantatative data certain significant accomplishments not quantatative in nature are enumerated, e.g., the implementation of the National Standard Message Format, the new information on the further deployment of Soviet missile systems, ADP developments, R&D developments, etc.

e. These accomplishments are set forth to show how the resources (people and money) were used during the period covered (CY 1969) and to justify, in large part, the resources requested for the years covered by the Plan.

5. It seems logical to me then that since this is the kind of information used to justify the resources provided the Center that periodically during the year (monthly or quarterly) reports ought to be furnished the Executive Director which show what has been accomplished during the

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reporting period in each of the categories discussed above. For example,

production for the reporting period should be compared with the production

during the same period of the previous year, and with the annual commit-

ment. Where commitments are not being met or when commitments were met

significantly in advance of schedule, brief but clear explanations should

be provided. In addition to the information discussed in paragraph 4

above the Executive Director should receive reports on major personnel

matters and on the financial situation of the Center. Non-quantatative

information should be provided in clear, concise narrative form. Whether

such reports, produced by each Group or Staff, are submitted directly to

the Executive Director or to the PPBS where they could be consolidated

would depend on the wishes of the Executive Director. I personally would

prefer that each Group and Staff Chief be made responsible for reporting

directly on his own activities.

6. If you agree that the information called for in the previous

paragraph is what you need then we must ask whether or not the MIS can

produce it. The answer to the question is a resounding NO. The proof

of this statement is that the MIS is not used as a source when compiling

the information on past accomplishments for the Five Year Plan. Rather

such information is compiled from the separate information systems main-

tained throughout the NPIC. The MIS could of course be designed and

programmed to provide such information but at a substantial cost.

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7. The principal designer of the current NPIC MIS was given little or no guidance re the kind of "management information" required or desired when he was directed to design an MIS. As a result he attempted to build a system that would answer almost any question that he and others could conceive that management might raise. This resulted in a complex system which accumulates a lot of information that is rarely and in some cases never used because it is duplicated in whole or in part elsewhere in NPIC or in the Agency. I have in mind things like overtime, leave of one kind or another, travel time, products produced, status of R&D projects, etc. There are also numerous systems re the production status of projects maintained (manually) in NPIC and used in lieu of the MIS.

8. Let us briefly examine one of the more important of these categories - Products - and see how useful the MIS has been in supplying information relative to the volume and types of products produced by NPIC during a specified time period. It can be stated without fear of contradiction that the product information (reports, briefing aids, services performed, etc.) in the MIS is universally regarded as inaccurate, inadequate and incomplete. As a result the MIS is never used to compile product information. Rather, such information is secured from sources other than the MIS, principally from records kept by PSG. It must be pointed out that the reason the product information in the MIS is bad is because those responsible for recording it in the system

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do a poor job of it. In turn, they probably do a poor job because the
service from the system has been poor and little or no benefit is
realized by supporting the system. As a result, product information has
never been consistently and accurately recorded in the MIS. This same
condition exists to a greater or lesser degree with respect to the other
categories of information mentioned above.

9. These then are the reasons cited for maintaining separate infor-
mation systems. A composite of the reasons given to me during this survey
would go something like the following. "The information needs of our
component are more specific and more detailed than the MIS provides,
and therefore a system geared to answer such needs was developed. Our
system, because it is geared to our specific needs, is less complicated,
more easily understood by more people, more accessible and therefore used
more. Its responses are more timely and more reliable and thus more use-
ful in scheduling and controlling project work." If this is true, and
I find no reason to doubt it, the need to continue the MIS in its present
form or at all must be carefully considered.

10. The principal user of the MIS is the PPBS. This Staff is also
and quite naturally the prime booster of the MIS. They have used data
(primarily manhour) from the MIS in at least two of their special studies,
namely, the "IEG Production Branch Study" and the "Cable Traffic Study."
Although these studies were completed some months ago no action has as
yet been taken on the problems discussed. If one subscribed to the widely
held managerial belief that "information no matter how good is useless unless
some constructive action results from it" one cou

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these studies could just as well have been omitted.

11. As you are fully aware PPBS proposed in August 1969 that the
MIS be retained but modified, that a study of the NPIC information needs
be made and based on this study a new system concept be developed (Reference
a). In February 1970 PPBS proposed that certain programming actions be
taken to make the system respond in a more timely fashion (Reference b).
The specific objective of this programming work, at an estimated cost
of nine man-months of effort, was to reduce the file update time from two
weeks at the time of their proposal to approximately one week. As of 2
November 1970, it was my understanding that the MIS file had not been
updated with the data collected for September and October 1970 and indeed
the errors in the data submitted for July and August had not been corrected.
This condition resulted from program malfunctions and a reduction in the
number of people assigned by AID to maintain the MIS. This means that as
of 2 November 1970 the file had not been totally updated for four months.

12. This condition of course adds fuel to the two very serious
criticisms most consistently levelled at the MIS, i.e., the information
in the system is inaccurate and it is too old. If the MIS is essential
or even important to the NPIC operations it is difficult to understand
why such a situation was allowed to develop let alone explain why it has
lasted as long as it has. On the other hand, if the MIS is of marginal
value it is easy to explain.

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13. As is apparent from the foregoing, no one is satisfied with the MIS as it is currently structured or as it currently performs. Some change is in order. The more important of the alternatives that exist regarding the MIS seem to me to be:

a. Approve of the PPBS February 1970 proposal which calls for an estimated nine months of programming time and which would leave the MIS essentially as it is now, but speed up the update of the file to one week so that the information contained therein is available for use. This proposal also calls for the PPBS to further study and analyze the uses to which the MIS are put so that further refinements and improvements to the system could be made.

It must be pointed out that this approach would not immediately provide the information called for in the proposed Executive Director reports, but if the improvements called for as a result of the analysis of the system speci- fied the information needs of the reports the MIS could be designed to produce it.

b. Change the concept of the MIS from that of an all- inclusive project cost, production control, and personnel accounting system to one which is exclusively concerned with project costs and production control.

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This in a nutshell would mean that only those people
actively engaged in project work would record their time
for the MIS and then only that time that is spent perform-
ing a function essential to the completion of a project.
No time spent in leave, training, travel, etc., would be
recorded in the MIS. Under this alternative all personnel
in the Office of the Director, PPBS, SS and TSG (except APSD)
would be removed from the MIS. In addition, those personnel
in TSG/APSD, IEG and PSG who are engaged in activities not
directly attributable to project work would be removed. Such
a system would allow for the continued collection of man-hour
cost data by type of project which would cover most if not all
of the information needs (such as the COMIREX Resources report)
NPIC has used the MIS for in the past. It might be of interest
to know that Central Reference Service has an information system
(computer based) like this although it is still in the test and
development stage. Office of Economic Research has a similar
system although it is a manual one and one which over the years
has been cut back from one which was substantially like NPIC's
present system.

c. Eliminate the MIS altogether and charge each Group or
Staff with maintaining the necessary data with which to perform
their jobs and to be able to fully respond to their superiors'
information needs.